ABSTRACT

A floating rig or structure for drilling in the floor of an ocean using a rotatable tubular includes a seal housing having a rotatable seal connected above a portion of a marine riser fixed to the floor of the ocean. The seal rotating with the rotating tubular allows the riser and seal housing to maintain a predetermined pressure in the system that is desirable in underbalanced drilling, gas-liquid mud systems and pressurized mud handling systems. The seal is contemplated to be either an active seal or a passive seal. A flexible conduit or hose is used to compensate for relative movement of the seal housing and the floating structure because the floating structure moves independent of the seal housing. A method for use of the system is also disclosed.